REMARKS

The Office action mailed April 5, 2006, has been received and its contents carefully noted. The pending claims, claims 12-16, were rejected. By this Response, claim 13 has been amended. Support may be found in the specification and the claims as originally filed. No statutory new matter has been added. Therefore, reconsideration and entry of the claims as amended are respectfully requested.

Rejection under 35 U.S.C. 102(e) and 102(a)

The Examiner rejected claims 12-16 under 35 U.S.C. 102(e) as being anticipated by Denning et al. (U.S. Patent No. 6,451,181). The Examiner also rejected claims 12-13 under 35 U.S.C. 102(e) and 102(a) as being anticipated by Zhao et al. (U.S. Patent No. 5,968,379). The Examiner deemed that uneven deposition and unnecessary films peeling off and accumulating in the particle generation preventing space are inherent in Denning et al. and Zhao et al.

Applicants respectfully submit that claim 13, as amended, has the following novel features:

(1) The particle generation preventing space is formed between an inner peripheral part of a lower surface of the guide ring and the upper surface of the stage for supporting the object to be processed.
(2) The removing step of removing the object to be processed from on the stage does not change the shape of the particle generation space.

The above features provide advantages over the prior art. Because of features (1) and (2), Applicants' method prevents, to a higher degree, unnecessary films, that may be deposited on the upper and the lower wall surfaces defining the particle generation preventing space, from touching each other. Even if the deposited films come off the wall surfaces, Applicants' method prevents them, to a higher degree, from being dispersed in a processing space or settling on the surface of the object to be processed.

None of the cited prior art references discloses a particle generation space which does not change shape when an object to be processed is removed from the stage.

In Zhao et al., the flow restrictor ring (46) sits on a ceramic ring (64) in a ledge (69) when the pedestal is lowered for wafer unloading and loading. See column 13, lines 58-61. Thus, the flow restrictor ring (46) is moved away from the pedestal, when the pedestal is lowered for wafer unloading and loading. This movement away changes the shape of the space formed between the flow restrictor ring (46) and the pedestal.

The present invention is different. Specifically, according to the present invention as claimed, even if the peak portions 70A and 72A of the films 70 and 72 (See Fig. 3) peel off the wall surfaces, the peeled films accumulate in the region toward the depth of the particle generation preventing space 64. The peeled films therefore do not disperse as particles into the processing space S, and the particles do not settle on the surfaces of the objects to be processed, wafers W. Further, as provided in the specification on page 10, lines 29-34, because the removing step of removing the object to be processed from the stage does not change the shape of the particle generation preventing space, the particle generation preventing space is maintained in its original shape during the removing step. Thus, Zhao et al. does not anticipate the claimed invention.

Similarly in Denning et al., the clamp (85) is moved away from the wafer (22), when the wafer (22) is removed. Thus, when the wafer (22) is removed, the shape of the space formed between the clamp (85) and the wafer (22) is changed. Consequently, Denning et al. does not teach that the shape of the particle generation preventing space is unchanged. In addition, the space in Denning et al. that appears to correspond to the particle generation preventing space of the instant invention is not formed by "the upper surface of the stage" for supporting the object to be processed. This is a further important difference between the prior art and the claimed invention. Therefore, Denning et al. does not anticipate the claimed invention.

Therefore, Applicants respectfully submit that the claims, as amended, are novel (and unobvious) and that the rejection under 35 U.S.C. 102(e)/102(a) should properly be withdrawn.

Rejection under 35 U.S.C. 103(a)

The Examiner rejected claims 14-16 under 35 U.S.C. 103(a) as being unpatentable over Denning et al. in view of Chin Fong Lee (US 6,162,336) The Examiner similarly rejected claims 14-16 under 35 U.S.C. 103(a) as being unpatentable over Zhao et al. in view of Chin Fong Lee. Specifically, the Examiner deemed that it would have been obvious to have a narrow particle generation preventing space, in order to prevent unnecessary deposition, in order to reduce particulate generation.

As discussed above, Applicants respectfully submit that neither Denning et al. nor Zhao et al., alone or in combination, teaches or suggests that the particle generation preventing space shape remains unchanged when the object to be processed is removed from the stage. Chin Fong Lee fails to alleviate the deficiencies of Denning et al. and Zhao et al. Thus, none of the cited prior art teaches or suggests that the particle generation preventing space shape remains unchanged as Applicants have described in their claimed method.

Therefore, Applicants respectfully urge that the claims, as amended, are unobvious and the rejection under 35 U.S.C. 103(a) should properly be withdrawn.

Request for Interview

Applicants respectfully request either a telephonic or an in-person interview should there be any remaining issues. In particular, Applicants would greatly appreciate the Examiner calling the undersigned to arrange an interview prior to acting on this response.

CONCLUSION

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

It is not believed that extensions of time are required, beyond those that may otherwise be provided for in accompanying documents. However, in the event that additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. §1.136(a), and any fees required therefor are hereby authorized to be charged to **Deposit Account No. 02-4300,** Attorney Docket No. **033082M0991**.

Respectfully submitted,
SMITH, GAMBRELL & RUSSELL, LLP

Michael A. Makuch
Reg. No. 32,263

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1850 M Street, NW, #800
Washington, D.C. 20036
Telephone: (202) 263-4300
Facsimile: (202) 263-4329